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(54) Title: ALDEHYDE DEHYDROGENASE II

(57) **Abstract:** The present invention concerns a novel aldehyde dehydrogenase having the following physico-chemical properties: a molecular weight of $100,000 \pm 10,000$ Da which comprises two homologous subunits or a molecular weight of $150,000 \pm 15,000$ Da which comprises three homologous subunits, each subunit having a molecular weight of $55,000 \pm 2,000$ Da; dehydrogenase activity on L-sorbose, D-Glucosone, D-glucose and D-xylose; utilizes as cofactor pyrroloquinoline quinone; has an optimum pH of from 6.5 to 8.0 for the production of vitamin C and an optimum pH of about 9.0 for the production of 2-keto-L-gulonic acid from L-sorbose; and is inhibited by Co^{2+} , Cu^{2+} , Fe^{3+} , Ni^{2+} , Zn^{2+} , and monooiodoacetate, is derived from a microorganism belonging to the genus *Gluconobacter*.